Notice of Allowability	Application No.	Applicant(s)	
	10/735,482	NEUMANN ET AL.	
	Examiner	Art Unit	
	JASON MITCHELL	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *a request for continued examination filed 3/19/09*.

2. ☒ The allowed claim(s) is/are *1,4,6-10,13-35,38,39,41,43 and 46-50*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *20090618* .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Jason Mitchell/
Examiner, Art Unit 2193

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Mark Williams on 6/18/09.

The application has been amended as follows:

Claim 1. In an object-oriented environment, a method of testing a software program comprising a plurality of components executed on one of a plurality of operating systems for compliance with Americans with Disabilities Act (ADA) requirements, the method comprising:

determining, in response to a trigger, a cursor position, wherein the trigger comprises a user manipulating a hotkey on a keyboard, and wherein the hotkey is associated with an event;

ascertaining, based on the cursor position, an accessibility context associated with the cursor position;

identifying a component by reference to the accessibility context, wherein the accessibility context has an accessibility role that defines a set of properties, including at least one program method, associated with the accessibility context, wherein the

identified component comprises the set of properties, ~~and wherein the accessibility context further includes a set of actions included in an action list which are configured to emulate a disabled user's actions while interfacing with the software program~~;

identifying an action to be taken by the identified component in response to the event associated with the hotkey, and emulating that action by recording, in real time and independent of any of the plurality of operating systems, the identified accessibility context and action, without causing the program to perform the action, wherein the recording of the identified accessibility context is an operating system independent process;

retrieving the stored accessibility context;

searching a component hierarchy for an object having an accessibility context matching the retrieved accessibility context; and

playing back ~~an~~ the action associated with the event based on the stored accessibility context to test the action associated with the event in reference to the accessibility context.

Claim 5: (canceled).

Claim 6, line 1: replace “claim 5” with “claim 1"; and “trigger” with “associated event”.

Claim 7, line 1: replace “an event” with “the action”.

Claim 8, line 1: replace “claim 5” with “claim 1"; and “trigger” with “associated event”.

Claim 9, line 1: replace “claim 5” with “claim 1"; and “trigger” with “associated event”.

Claim 10, line 1: replace “claim 5” with “claim 1"; and “trigger” with “associated event”.

Claim 11-12: (canceled).

Claims 36-37: (canceled)

Claim 38: A computer program product for testing a software program comprising a plurality of components executed on one of a plurality of operating systems for compliance with Americans with Disabilities Act (ADA) requirements, the computer program product being embodied in a computer readable storage medium and comprising instructions executable by a computer to:

determine, in response to a trigger, a cursor position, wherein the trigger comprises a user manipulating a hotkey on a keyboard, and wherein the hotkey is associated with an event;

ascertain, based on the cursor position, an accessibility context associated with the cursor position;

identify a component by reference to the accessibility context, wherein the accessibility context has an accessibility role that defines a set of properties, including at least one program method, associated with the accessibility context, wherein the identified component comprises the set of properties~~, and wherein the accessibility context further includes a set of actions included in an action list which are configured to emulate a disabled user's actions while interfacing with the software program~~;

search a component hierarchy for an object having an accessibility context matching the component's accessibility context;

identifying an action to be taken by the identified component in response to the event associated with the hotkey, and emulating that action by recording, in real time and independent of any of the plurality of operating systems, the identified accessibility context and action, without causing the program to perform the action, wherein the recording of the identified accessibility context is an operating system independent process;

retrieve the stored accessibility context; and

play back the action associated with the ~~an~~ event based on the stored accessibility context to test the action associated with the event in reference to the accessibility context.

Claim 39. A system for testing a software program comprising a plurality of components executed on one of a plurality of operating systems for compliance with Americans with Disabilities Act (ADA) requirements, the system comprising:

a processor;

an input device in communication with the processor; and

a computer readable medium in communication with the processor, the computer readable medium comprising instructions executable by the processor to:

determine, in response to a trigger, a cursor position, wherein the trigger comprises a user manipulating a hotkey on a keyboard, and wherein the hotkey is associated with an event;

ascertain, based on the cursor position, an accessibility context associated with the cursor position;

identify a component by reference to the accessibility context, wherein the accessibility context has an accessibility role that defines a set of properties, including at least one program method, associated with the accessibility context, wherein the identified component comprises the set of properties~~, and wherein the accessibility context further includes a set of actions included in an action list which are configured to emulate a disabled user's actions while interfacing with the software program~~;

identifying an action to be taken by the identified component in response to the event associated with the hotkey, and emulating that action by recording, in real time and independent of any of the plurality of operating systems, the identified accessibility context and action, without causing the program to perform the action, wherein the recording of the identified accessibility context is an operating system independent process;

retrieve the stored accessibility context;

search a component hierarchy for an object having an accessibility context matching the retrieved accessibility context; and

play back the action associated with the ~~an~~ event based on the stored accessibility context to test the action associated with the event in reference to the accessibility context.

Claim 40. (canceled)

Claim 41, line 1: replace “claim 40” with “claim 39".

Claim 42. (canceled)

Claim 45. (canceled)

Claim 46. In an object-oriented environment, a method of determining a software program's compliance with legal requirements for accommodating persons with disabilities, the software program comprising a plurality of components executed on one of a plurality of operating systems, the method comprising:

determining, in response to a trigger, a cursor position, wherein the trigger comprises a user manipulating a hotkey on a keyboard, and wherein the hotkey is associated with an event;

ascertaining, based on the cursor position, an accessibility context associated with the cursor position;

identifying a component by reference to the accessibility context, wherein the accessibility context has an accessibility role that defines a set of properties, including at least one program method, associated with the accessibility context, wherein the identified component comprises the set of properties~~, and wherein the accessibility context further includes a set of actions included in an action list which are configured to emulate a disabled user's actions while interfacing with the software program~~;

identifying an action to be taken by the identified component in response to the event associated with the hotkey, and emulating that action by recording, in real time and independent of any of the plurality of operating systems, the identified accessibility context and action, without causing the program to perform the action, wherein the recording of the identified accessibility context is an operating system independent process;

retrieving the stored accessibility context;

searching a component hierarchy for an object having an accessibility context matching the retrieved accessibility context;

playing back the stored action associated with the accessibility context to test the action functionality of the component in reference to the accessibility context and generating output with results of the functionality test;

analyzing the results to evaluate the component's compliance with legal requirements for accommodating persons with disabilities; and

reporting, to a user, a report of an analysis.

The following is an examiner's statement of reasons for allowance:

The closest prior art ("Java tm 2 Platform, Standard Edition v1.2.2 API Specification" (Java SE) and "Specification –based Testing for GUI-based Applications" (Chen)) teaches testing an replay of a program comprising components with accessibility contexts (see the previous rejection) Further, testing for compliance with the known ADA requirements would have at least been obvious.

The closest prior art does not disclose triggering an action associated with a specific event in response to a key press, and recording but not performing that action.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON MITCHELL whose telephone number is (571)272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bullock Lewis can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Mitchell/
Examiner, Art Unit 2193